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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/080,982
Filing Date: February 22, 2002
Appellant(s): JOHNSTON, ROGER L.

Timothy E. Newholm
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 22, 2007, appealing from the Office action mailed April 20, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

SU 887,434	KOZLOVOY KRAN	12-1981
FR 2,597,460	B. P. VARENNE	10-1987
FR 2,420,502	C. GRILLET	10-1979
3,831,791 (US)	GONZALES	8-1974
4,897,011 (US)	BROWER	1-1990

4,973,094 (US)	TANA ET AL.	11-1990
4,749,324 (US)	RULISON	6-1988

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-4, 7, 9-11, 17-19, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887,434) in view of the France Patent (FR 2,597,460) and further in view of either the France Patent (FR 2420502) or Gonzales (3,831,791).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887,434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791), as applied to claims 1-4 above, and further in view of Brower (4,897,011).

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887,434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791), and in view of Brower (4,897,011), as applied to claims 1-5 above, and further in view of Tana et al. (4,973,094).

Claim 12, 13, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887434) and the France Patent (FR 2,597,460) in view of either the

France Patent (FR 2420502) or Gonzales (3,831,791), as applied to claim 1 above, and further in view of Rulison (4,749,324).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791), and in view of Brower (4,897,011), and further in view of Rulison (4,749,324).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791), and in view of Brower (4,897,011), further in view of Rulison (4,749,324), as applied to claim 14 above, and further in view of Tana et al. (4,973,094). This rejection is set forth in prior Office Action, mailed April 20, 2007.

(10) Response to Argument

Claim Rejections - 35 USC § 112

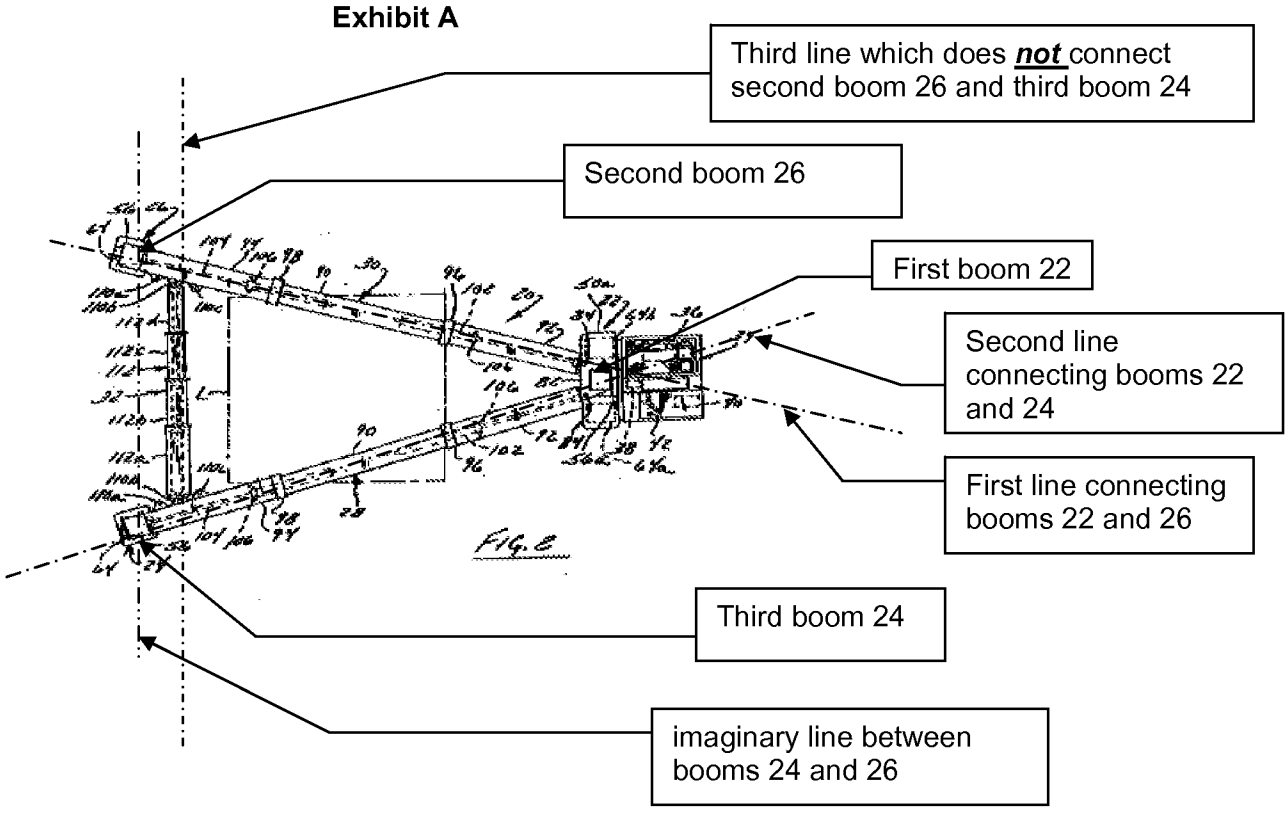
(i) Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Appellant recites "*first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle*" in claims 1,13,14,16-18, and the recitation is rejected as "vague and indefinite".

Appellant argues that "Fig. 2 of the application, when viewed in a top plan view, a series of three lines oriented in a horizontal plane such that each line passes through or interconnects two of booms 22, 24, 26, defines the orientation of the lines, and therefore the orientation of the booms in space, to form an acute triangle" (see from line 22 of page 17, to line 3 of page 18).

The argument is incorrect. Fig. 2 only shows two lines interconnecting, a first line connecting booms 22 and 26, and a second line interconnecting booms 22 and 24, but does not show a line interconnecting booms 24 and 26 as shown in Exhibit A. Note that Exhibit A clearly shows that a rear horizontal beam (32) having a line does **not** interconnect the booms 24 and 26. Moreover, the Exhibit A looks like a capital letter "A", instead of "a triangle". Therefore, the recitation of "*first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle*" is unclear as to whether the lines represent "imaginary lines" or "lines of horizontal beams (28, 30, and 32).

Exhibit A



(ii) Claims 1-3, 7, 13, 14, 16, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-3,7,13,14,16, and 21 recite, ""*rigging that extends downwardly from the beams and that is detachably coupleable to the load after the gantry crane is transported to a position in which at least one of the beams is located over the load, the rigging lifting the load from the ground upon subsequent extension of said booms and that then being releasable from the load upon subsequent retraction of the said booms*" and the claims 1-3,7,13,14,16, and 21 are rejected because the recitation is unclear as to whether appellant is claiming "a method of using the apparatus" or is merely reciting "functional limitations".

Appellant argues that "the limitation differentiates the claimed gantry crane from other lifting assemblies that rigging can be positioned after lift beams are located over the load. The limitation differentiates the claimed gantry crane from other lifting devices in calling for the lifting and lowering of a load via rigging and extension/retraction of booms" (2nd paragraph of page 20).

Note that claims 1-3,7,13,14,16, and 21 are apparatus claims, not method claims. The recitations of "after the gantry crane is transported to a position in which at least one of the beams is located over the load", "the rigging lifting the load from the ground upon subsequent extension of said booms", and "then, being releasable from the load upon subsequent retraction of the said booms" point out the "using of the gantry crane on a load". Therefore, the recited phrases are confusing.

Claim Rejections - 35 USC § 103

Claims 1-4, 7, 9-11, 17-19, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887,434) in view of the France Patent (FR 2,597,460) and further in view of either the France Patent (FR 2420502) or Gonzales (3,831,791).

Claims 1 and 2

The Soviet Union Patent (SU 887,434)

The Soviet Union Patent (SU 887,434) (see Exhibit B) discloses

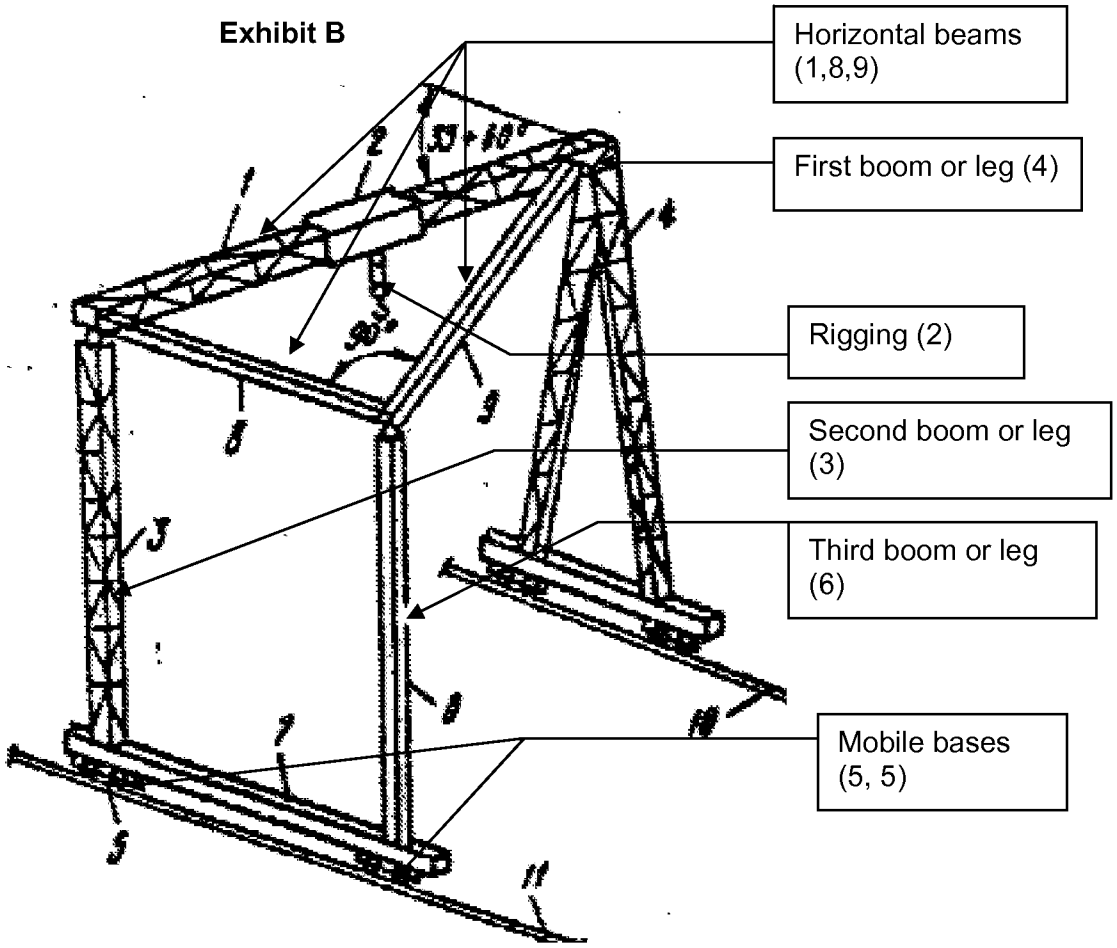
(A) first (4), second (3), and third (6) booms, each boom having a mobile base, the first boom (4) being positioned between the second and third booms (3 and 6),

(B) a plurality of horizontal beams (1, 8, and 9) that functionally interconnect said lift legs, and

(C) rigging (2) that extends downwardly from the beams and that is detachably coupleable to the load after the gantry crane is transported to a position in which at least one of the beams is located over the load.

It is pointed out that the invention of the Soviet Union Patent '434 is "*for lifting or handling and erecting mechanism which are applied in the construction of industrial buildings and structures, specifically, to gantry cranes*" (1st paragraph of page 2 of English translation) and "*it is possible also to apply the invented crane for the installation of heavy equipment within construction spacing prior to the installation of roofing blocks*" (page 4, lines 8-11 of English translation).

Exhibit B



Claim 1 recites in lines 7-8, "first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle"

Exhibit B (figure 2) clearly teaches the claim limitation of "first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle". The Soviet Union Patent (SU 887,434) does not clearly disclose a mobile base that is rotatable about a vertical axis and each boom having a lift leg that is extendible about the vertical axis.

The France Patent (FR 2,597,460)

The France Patent (FR 2,597,460) (see Exhibits C and D) teaches two vertical and telescoping posts or legs or booms (12 and 14), adjustable by an acting jack (13), and another "*vertical and telescoping post or leg* or boom (33), *provided with a lifting jack, inside the boom (33), for raising and lowering*" (last paragraph of page 7 of English translation), and "*a rotatable wheel (34) installed loosely about its vertical axis and receiving a unit hand-controlled steering wheel (36)"* (1st paragraph of page 8 of English translation). Note that an operator (25) "*controls from his steering position at the steering column 36 shown in the drawing..... He also controls ..... the lifting and lowering control jack of the rear leg 33, ... The steering column 36 also allows him to guide the idle rear wheel 34*" (2nd paragraph of page 8 of English translation).

Exhibit C

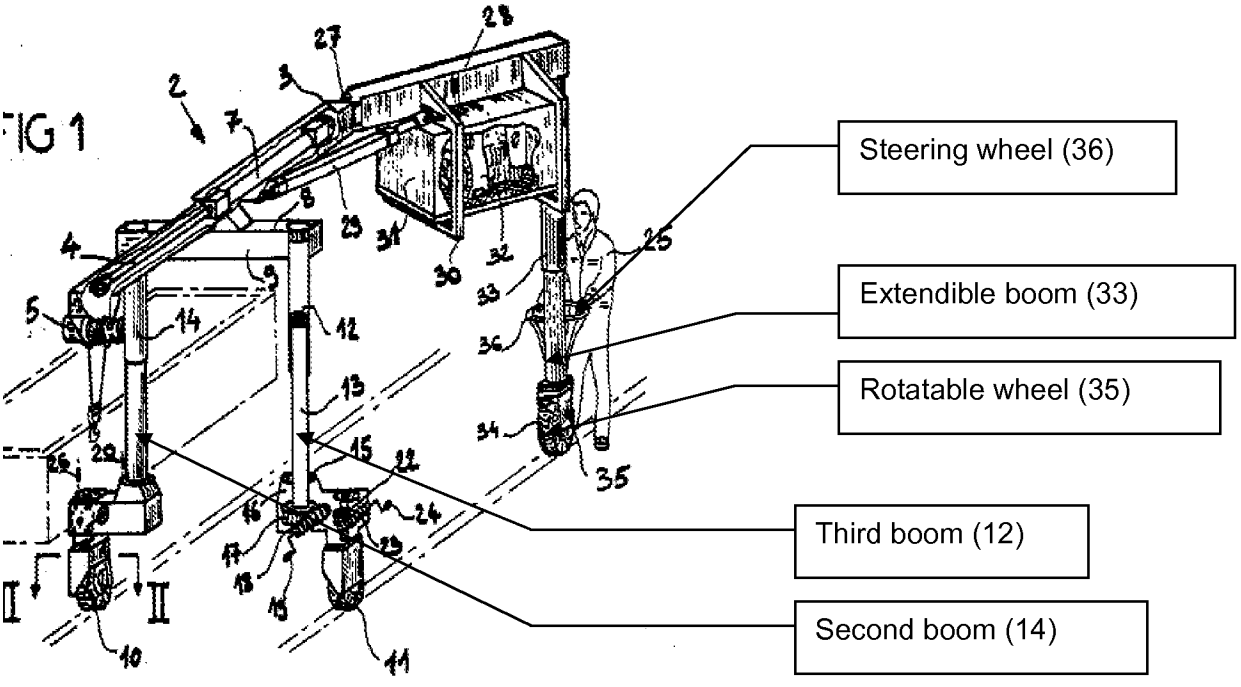
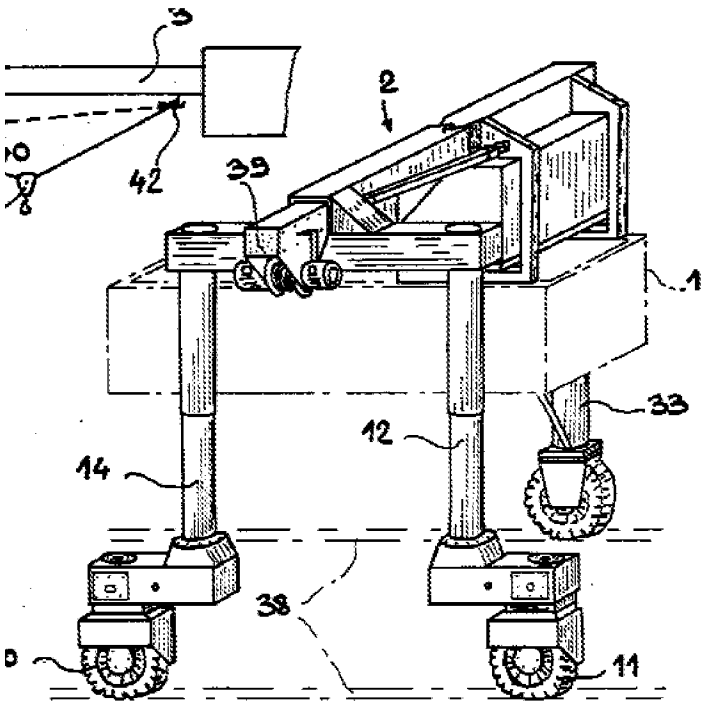


Exhibit D



It is pointed out that the France Patent's gantry is capable of being oriented at different positions as shown in figures 1, 3, 4, and 5.

Obviousness

The Soviet Union Patent (SU 887,434) in view of the France Patent (FR 2,597,460)

Appellant argues that "the obviousness rejections of the pending claims are improper and unsupportable (1st paragraph of page 22).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the Soviet Union Patent '434 discloses first (4), second (3), and third (6) booms, each boom having a mobile base, the first boom (4) being positioned between the second and third booms (3 and 6), a plurality of horizontal beams (1, 8, and 9) that functionally interconnect said lift legs, and rigging (2) that extends downwardly from the beams and that is detachably coupleable to the load after the gantry crane is transported to a position in which at least one of the beams is located over the load.

The Soviet Union Patent (SU 887,434) does not clearly disclose a mobile base that is rotatable about a vertical axis and each boom having a lift leg that is extendible about the vertical axis.

However, the France Patent (FR 2,597,460) (see Exhibit C) teaches "a *vertical and telescoping post or leg* or boom (33), *provided with a lifting jack, inside the boom (33), for raising and lowering*" (last paragraph of page 7 of English translation) and two other vertical and telescoping posts or legs or booms (12 and 14), adjustable by an acting jack (13), and "*a rotatable wheel (34) installed loosely about its vertical axis and receiving a unit hand-controlled steering wheel (36)"* (1st paragraph of page 8 of English translation). Thus, to those skilled in the gantry crane art would provide an extendible boom (33) with a rotatable wheel (along with a steering wheel 36) (to replace the boom 4) on the Soviet Union's gantry crane as taught by the France Patent (FR 2,597,460) so that an operator could effectively and independently manipulate the powered gantry without much effort. Also note that the other second and third booms (3 and 6) of the Soviet Union's gantry crane could be modified as extendible vertical booms as taught by the France Patent

(FR 2,597,460) so that an operator could effectively and independently manipulate the powered gantry without much effort.

Appellant's Argument on the Soviet Union Patent (SU 887,434)

Appellant argues that "SU '434' does not disclose a triangulated gantry, and it instead discloses a four legged gantry in which two of the legs (3) are parallel and two of the legs on the opposite side of the gantry extend at an acute angle" (last thee lines of 2nd paragraph of page 23).

The argument is incorrect and not persuasive. Claim 1, lines 7-8, recites, "first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle". It is pointed out that Fig. 2 of the instant application (Exhibit A) looks like a capital letter "A", instead of "a triangle".

Exhibit E

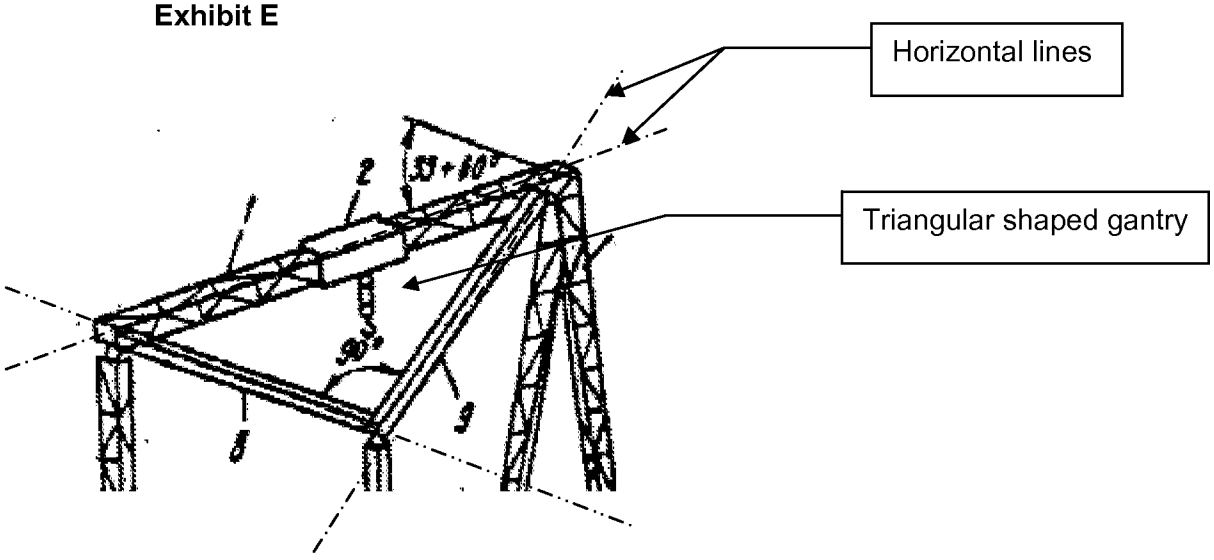


Exhibit E teaches "first, second, and third horizontal lines interconnecting said first, second, and third booms form an acute triangle" as recited in claim 1.

Appellant also argues that "there would be no reason to include independently steerable gantry legs for a gantry configured to operate on rails. This is, the supports are intended to

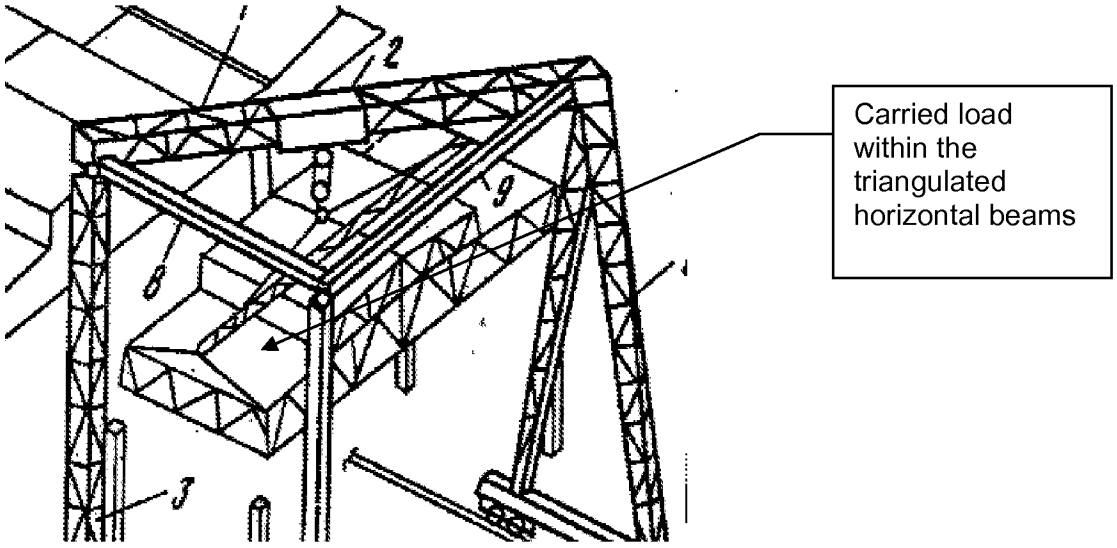
follow the rails and, as such, would enjoy no benefit if they were independently steerable relative thereto" (1st paragraph of page 24 and 1st paragraph of page 25).

It is pointed out that the invention of the Soviet Union Patent '434 is "*for lifting or handling and erecting mechanism which are applied in the construction of industrial buildings and structures, specifically, to gantry cranes*" (1st paragraph of page 2 of English translation) and "*it is possible also to apply the invented crane for the installation of heavy equipment within construction spacing prior to the installation of roofing blocks*" (page 4, lines 8-11 of English translation). Moreover, Exhibit D (Fig. 5 of the France Patent (FR 2,597,460) teaches that a steerable gantry is operable within the rails. Further, Fig. 3 of the France Patent (FR 2,597,460) also teaches that a steerable gantry is operable without rails. The modification of the Soviet Union Patent '434 by providing "a *vertical and telescoping post or leg* or boom (33) *for raising and lowering*" with "*a rotatable wheel (34) installed loosely about its vertical axis and receiving a unit hand-controlled steering wheel (36)" of* the France Patent (FR 2,597,460) is predictable to those skilled in the gantry crane art so that an operator could effectively and independently manipulate at the desired places (within rails or without rails) the powered gantry without much effort.

Appellant also argues that "one of the ordinary skill in the art would readily appreciate that the modification would result in "offset loading" of the crane in which the center of gravity of the load is spaced apart or offset from the center of gravity of the crane. This offset load generates a very dangerous tipping torque on the crane that crane designers avoid at all cost" (lines 10-16 of page 24).

The argument is not persuasive. **Exhibit F** (Fig. 2 of the Soviet Union Patent '434) teaches that a load is being carried on a horizontal beam (1) wherein the carried load is located substantially at the center of the triangular shape gantry.

Exhibit F



Figs. 2 and 3 of the instant application also show each ringing (R) provided on each beam (28 or 30) in the provided drawings, filed Jan 24, 2006. Note that it would have been obvious to those in the crane art to provide one or more riggings or winches or cranes on the horizontal beams is predictable depending on the weight, shape, dimension of a load.

The Soviet Union Patent (SU 887,434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791)

Appellant lengthily argues that "none of the references cited by the Examiner alone or in combination with any of the other art of record in this matter, discloses, teaches, or suggests a lifting device having such a configuration and there in no common sense variant of the

combination of references cited by the Examiner which would yield the presently claimed invention" (2nd paragraph of page 28).

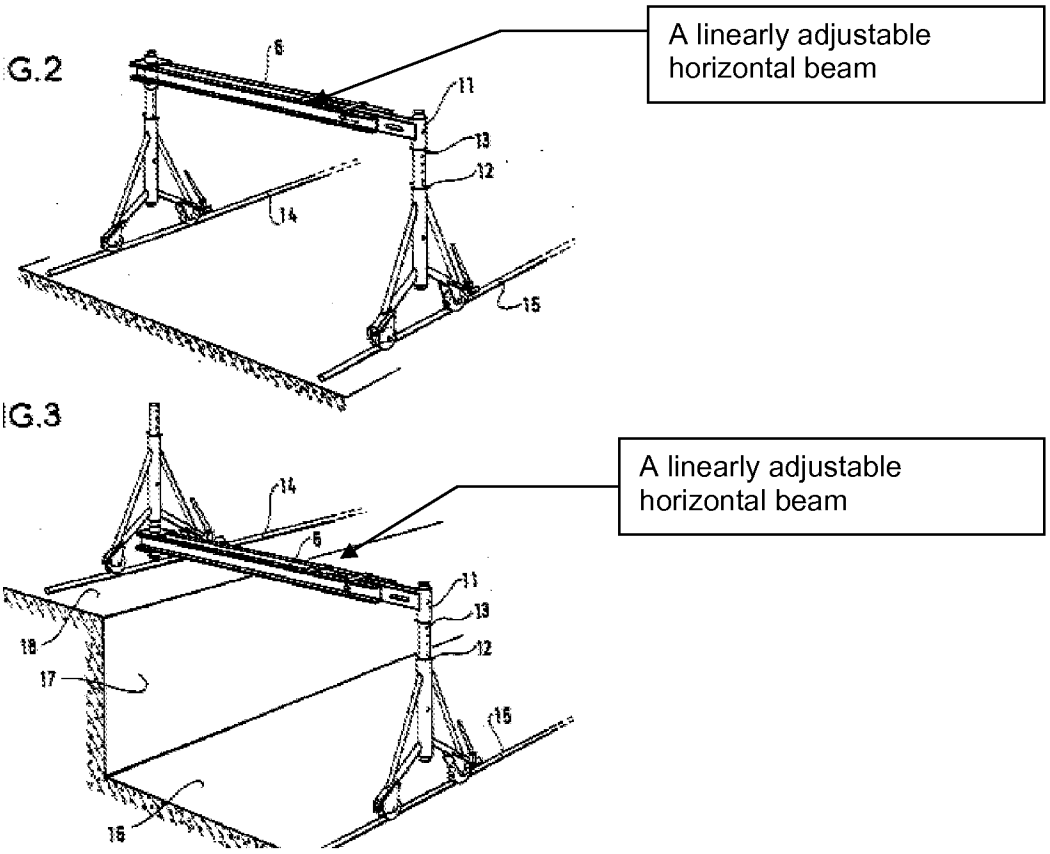
Claim 1 further recites, "*a plurality of horizontal beams that functionally interconnect said lifting legs and that are raisable with coordinated lifting of said first, second, and third booms to lift a load from the ground, and wherein at least one of the beams is linearly extendable to increase the horizontal spacing between two of said booms*" in lines 9-12. The Soviet Union Patent (SU 887,434) in view of the France Patent (FR 2,597,460) shows "a plurality of horizontal beams (1, 8, and 9) that functionally interconnect said lifting legs", but does not clearly teach that "at least one of the beams is linearly extendable to increase the horizontal spacing between two of said booms".

The France Patent (FR 2420502) or Gonzales (3,831,791)

The France Patent (FR 2420502) (see **Exhibit G**) teaches a gantry having a horizontal beam, which is adjustable in length. The English translation clearly describes "*As one can see in figures 2, 3, and 4, the beams 6, 23, and 24 are telescoped and therefore one can adjust their length*" in the last two lines of page 7.

Thus, to those skilled in the gantry art would provide an adjustable horizontal beam, instead of a fixed beam, on the Soviet Union Patent (SU 887,434) as taught by France Patent (FR 2420502) to employ an adjustable spacing providing flexibility to a user.

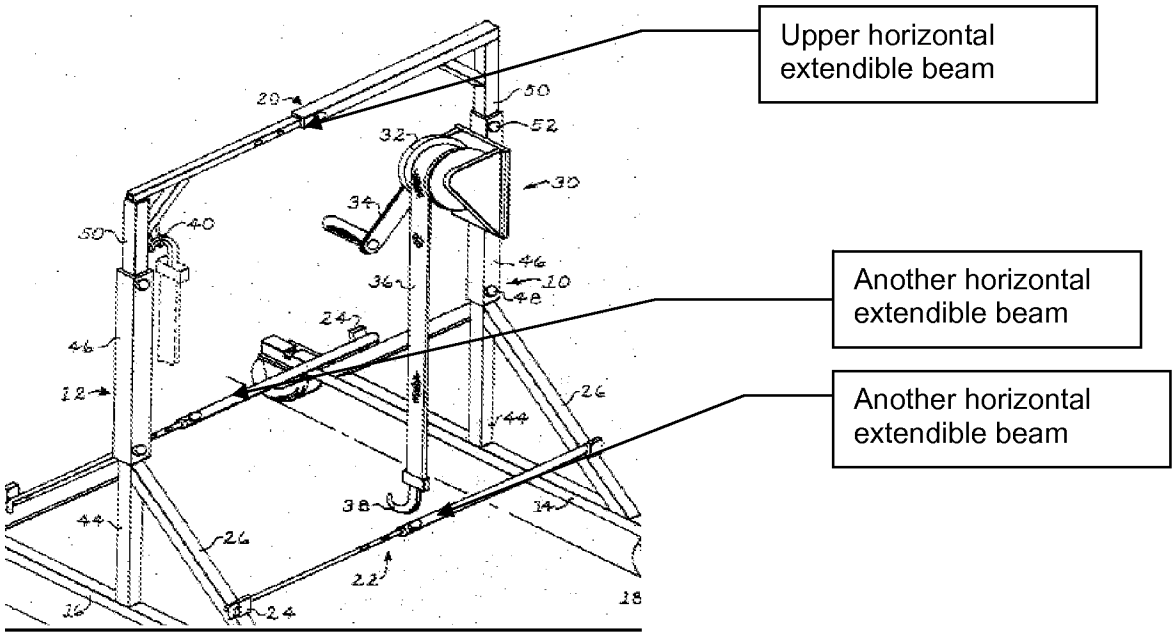
Exhibit G



Gonzales (3,831,791)

Gonzales (3,831,791) (**see Exhibit H**) also teaches a mobile lift having *a horizontal adjustable beam* (20) supported by two vertical legs (10 and 12) to provide an adjustable spacing for convenience to a user. Thus, to those skilled in the gantry art would provide an adjustable horizontal beam, instead of a fixed beam, on the Soviet Union Patent (SU 887,434) as taught by Gonzales (3,831,791) to employ an adjustable spacing providing flexibility to a user.

Exhibit H



Appellant's Arguments on the France Patent (FR 2420502) or Gonzales (3,831,791)

The Appellant argues that "one of the ordinary sill in the art would appreciate that legs 3, 4, and 6 of SU '434 are not extendible, nor is each leg independently supported on the ground as called for in claim 1" (last paragraph of page 23).

Fig. 2 of the Soviet Union Patent (SU 887,434) (see Exhibit B) shows second and third booms or legs (3 and 6) being connected by an upper horizontal beam (8) and a lower horizontal beam (7), but does not show an extendible beam. The France Patent (FR 2420502) (see **Exhibit G**) teaches a gantry having a horizontal beam, which is adjustable in length. The English translation clearly describes "*As one can see in figures 2, 3, and 4, the beams 6, 23, and 24 are telescoped and therefore one can adjust their length*" in the last two lines of page 7. Gonzales (3,831,791) also teaches a mobile lift having *a horizontal adjustable beam* (20) supported by two vertical legs (10 and 12) to provide an adjustable spacing for convenience to a user. Thus, to those skilled in the

gantry art would provide an adjustable horizontal beam, instead of a fixed beam, on the Soviet Union Patent (SU 887,434) as taught by either the France Patent (FR 2420502) or Gonzales (3,831,791) to employ an adjustable spacing providing flexibility to a user.

The Appellant also argues that "the France Patent FR '502 discloses a mobile gantry crane having a tube that fits inside the central tube of a lower portion and can be adjusted for height by means of transverse bolts (12) .....one of the ordinary skill in the art would appreciate that this height adjustment needs to be performed while the gantry is before the gantry is loaded" (2nd paragraph of page 27) and "Gonzales discloses the crossbar, carry bars, and the legs are telescoped for changing the height thereof….. the position or length of legs 10 and 12 cannot be altered nor either of the legs raisable as called for in claim 1" (last paragraph of page 27).

Appellant's arguments are incorrect and not persuasive. The applications of the France Patent (FR 2420502) and Gonzales (3,831,791) are to provide *an adjustable horizontal beam*. It is pointed out that *the height adjustment of the gantry* is met by the France Patent (FR 2,597,460) (see Exhibit C) which teaches "a *vertical and telescoping post or leg* or boom (33) *for raising and lowering*" (last paragraph of page 7 of English translation) and "*a rotatable wheel (34) installed loosely about its vertical axis and receiving a unit hand-controlled steering wheel (36)"* (1st paragraph of page 8 of English translation).

Claims 3 and 7

The Appellant basically argues that "the France Patent FR '502 does not disclose first and second beams that are extendible to increase the spacing between the first and second booms as defined by claim 3" (1st paragraph of page 32).

Claim 3 recites "*said first and second beams are extendible to increase the spacing between said first and second booms and said first and third boom*" and similarly claim 7 recites "*said third beam is extendible to increase the spacing between said second and third booms*".

Note that the France Patent (FR 2420502) (see **Exhibit G**) teaches a gantry having a horizontal beam, which is adjustable in length. The English translation clearly describes "*As one can see in figures 2, 3, and 4, the beams 6, 23, and 24 are telescoped and therefore one can adjust their length*" in the last two lines of page 7. Gonzales (3,831,791) also teaches a mobile lift having *a horizontal adjustable beam* (20) supported by two vertical legs (10 and 12) to provide an adjustable spacing for convenience to a user. Thus, to those skilled in the gantry art would provide a plurality of adjustable horizontal beams, instead of fixed beams, on the Soviet Union Patent (SU 887,434) as taught by either the France Patent (FR 2420502) or Gonzales (3,831,791) to employ an adjustable spacing providing flexibility to a user. It is pointed out that providing more than one horizontal beams on the on the Soviet Union Patent (SU 887,434) is predictable to those skilled in the gantry art to provide adjustable spacings for convenience to a user.

Claim 4

Appellant argues that "claim 4 further defines the gantry crane of claim 3 as including a first telescopic beam and a second telescopic beam through the use of each in claim 4. Although, Fr '502 suggests a gantry crane having a single extendible beam (6), there is no teaching suggestion, or disclose in the reference of record for a gantry carne having more than one extendible horizontal beams as called for in claim 4" (3rd paragraph of page 33).

The argument is not persuasive. Claim 4 further recites, "each of said first and second beams comprises a telescoping tube assembly comprising at least one inner tube and at least an outer tubes slidable over the inner tube".

Figures 2 and 3 of the France Patent (FR 2420502) teach a telescoping horizontal beam having one outer tube (6) slidable over at least one inner tube. It is pointed out that providing more than one horizontal beams on the on the Soviet Union Patent (SU 887,434) is predictable to those skilled in the gantry art to provide adjustable spacings for convenience to a user.

Appellant is silent about Gonzales (3,831,791). Fig. 3 of Gonzales (3,831,791) (**see Exhibit I**) also teaches a telescoping horizontal beam having one outer tube (54) slidable over at least one inner tube (58). **Exhibit H** (Fig. 1 of Gonzales (3,831,791) teaches a plurality of adjustable horizontal beams (20, 22, 22) to provide adjustable spacing between the vertical legs (10, 12).

Exhibit I

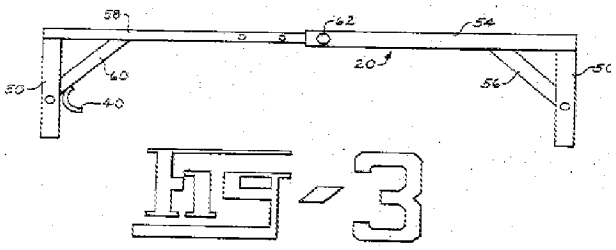


FIG-3

The provision of more than one extendible horizontal beam, instead of fixed beams, on the Soviet Union Patent (SU 887,434) as taught by Gonzales (3,831,791) is predictable to those skilled in the gantry art to provide adjustable spacings for convenience to a user.

Claim 5

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887,434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791), as applied to claims 1-4 above, and further in view of Brower (4,897,011).

Appellant argues that "the Examiner's interpretation that horizontal beam 16 of Brower is extendible is simply beyond the express disclosure of the reference. Specifically, Brower discloses an assembly wherein a number of tubular sections 36, 38 are joined together at right angles and configured to receive a support bar 16 which is held in place by a bolt 37..... One of the ordinary skill in the art would readily appreciate that providing an extendible and retractable connection between bar 16 and coupling brackets 34 by the removable of bolts would render the assembly of Browner unsuitable for its intended purpose in as much as the assembly would fall apart and support bar 16 would drop therefrom" (2nd paragraph of page 35).

In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim 5 defines the gantry crane recited in claim 4 and further recites, "*where each of said first and second beams comprises a single inner tube* ***positioned*** *at least generally centrally of said beam, a first outer tube extending from said inner tube to the lift leg of said first boom, and a second outer tube extending from said inner tube to the lift leg of the associated one of said second and third booms, each of said outer tubes being extendible and retractable relative to said inner tube*".

It is pointed out that claim 5 simply recites "the orientation of each beam comprising a single inner tube having two ends, a first outer tube extending from one end, and a second outer tube extending from the other end of the inner tube".

Figures 2 and 3 of the France Patent (FR 2420502) teach a telescoping horizontal beam having a first outer tube (6) slidable over at least one inner tube, but does not teach another outer tube (or a second tube) **being positioned or oriented** the other end of the inner tube. However, Fig. 1 of the France Patent (FR 2420502) (**see Exhibit J**) teaches an inner tube (2) or shaft positioned between a first outer tube (11) and a second outer tube (1). Thus, to those skilled in the lifting crane art would provide the position of the inner tube between two outer tubes on the horizontal beams of the Soviet Union Patent (SU 887,434) as taught by the France Patent (FR 2420502) is *predictable* to provide flexibility of linearly securely extending or retracting the beams.

Exhibit J

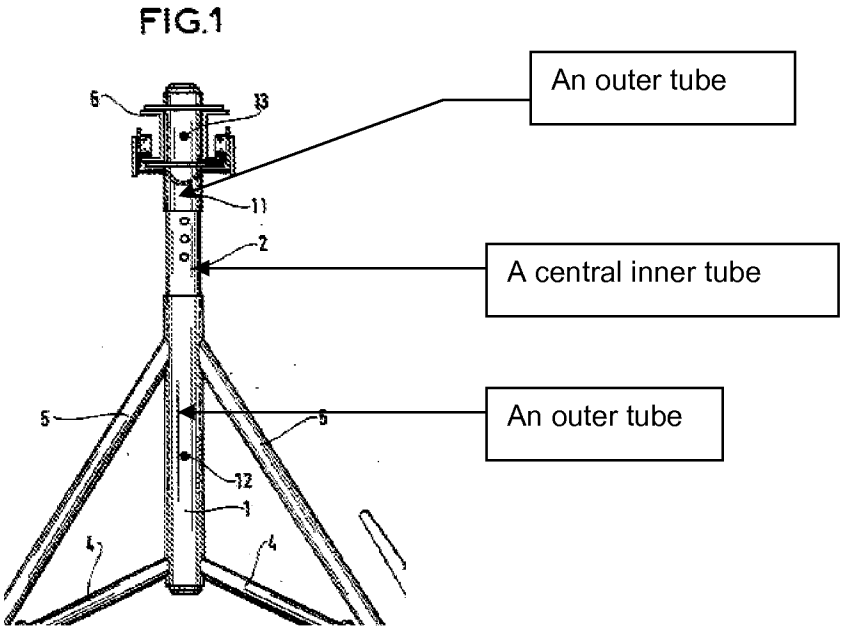
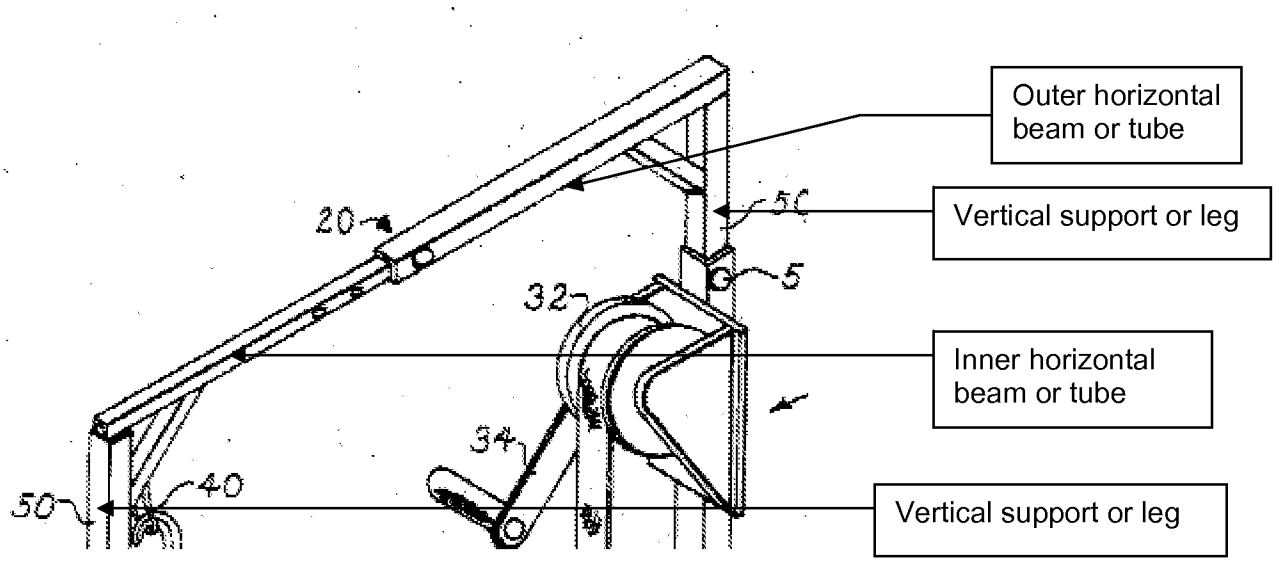


Fig. 3 of Gonzales (3,831,791) (**see Exhibit K**) also teaches a telescoping horizontal beam having a first outer tube (54) slidable over at least one inner tube (58) wherein the

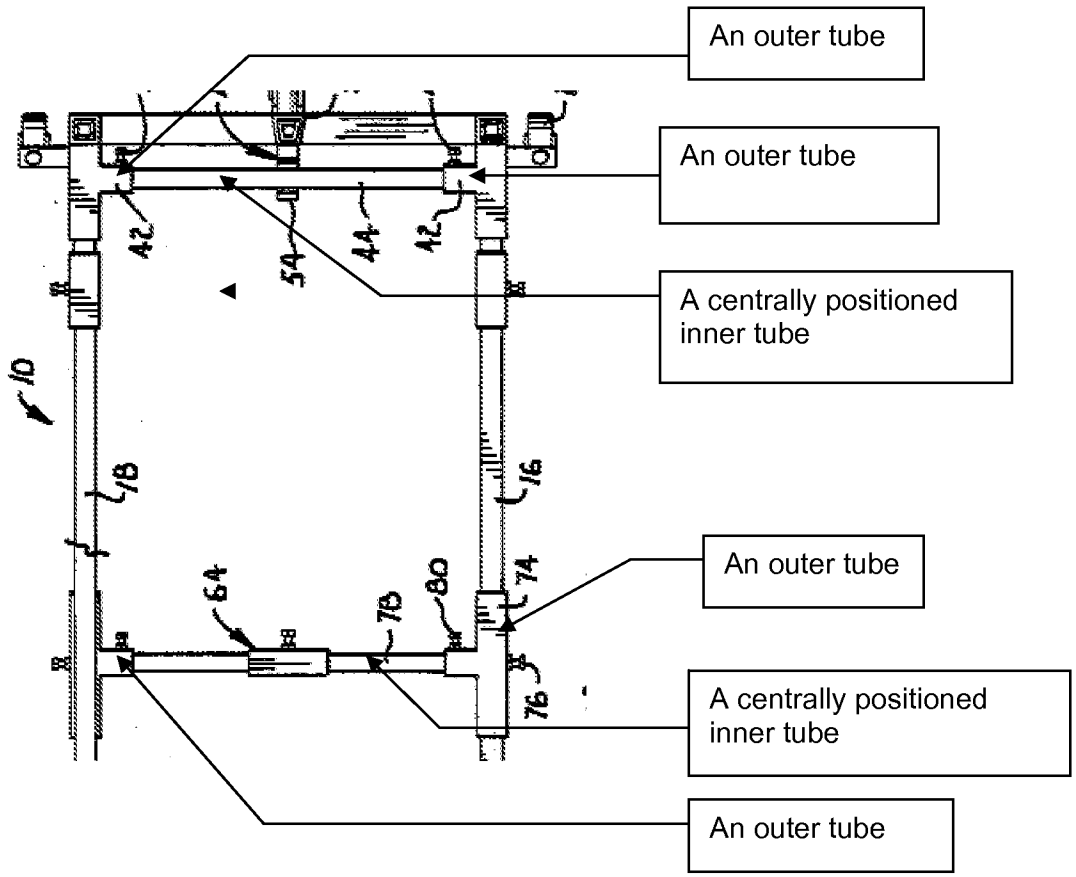
two ends of the telescoping beam are supported by each vertical support boom or leg. Either the France Patent (FR 2420502) or Gonzales (3,831,791) does not teach another outer tube (or a second tube) **being positioned or oriented** the other end of the inner tube.

Exhibit K



However, Brower (4,897,011) (**see Exhibit L**) teaches a horizontal beam having an inner tube (78, 44) ***positioned*** or ***oriented*** between two outer tubes, a first outer tube and a second outer tube.

Exhibit L



Thus, to those skilled in the hoisting and lifting art would provide *another outer tube* at the other end of the inner tube of Gonzales (3,831,791) as taught by Brower (4,897,011) to ***position*** or ***secure*** *the inner tube between two outer tubes* so that the modified gantry would be securely extendible or retractable.

Claims 6 and 8

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887,434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791), and in view of Brower (4,897,011), as applied to claims 1-5 above, and further in view of Tana et al. (4,973,094).

Appellant argues that "Tana et al. is directed to a crane implement for hoisting and launching boats..... Tana expressly discloses an apparatus for hoisting boats which includes a frame 1 having a longitudinal beam 2, two cross beams 3 and 4, and a series of longitudinal beams 5, 6,..... the device is Tana et al is not a gantry crane, but is the implement associated with and/or being operative with such crane or of a similar lifting crane" (2nd paragraph of page 37).

In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim 6 further recites "*each of said first and second beams further comprises a pair of cylinders, each of which is operable to extend and retract one of said outer tubes relative to said inner tube*" and claim 8 also further recites "*said third beam comprises a hydraulic cylinder extending between said first and second beams*".

It is pointed out that the purpose of using "a cylinder is extend and retract the beams as a power means. The modified Soviet Union Patent (SU 887434), as presented above, does not show *a pair of cylinders* on the outer tubes and inner tube to extend or extract. However, Tana et al. (4,973,094) teaches *a pair of cylinders* (9b,9c),) or(10b,10c) on the respective tubes (3a, 3b, 3c, 4a, 4b, 4c) to extend or retract. Thus, to those skilled in the

hoisting and lifting crane art would provide *a pair of cylinders* on the tubes the Soviet Union Patent (SU 887434) as taught by Tana et al. (4,973,094) to *powerfully* and *conveniently* to extend or retract the beams without a need to manually extend and retract the beams.

Claim 9

Appellant argues that "claim 9 defines the ability of the triangulated mobile gantry crane to provide a number of triangulated shapes" (see lines 4-5 of 2nd paragraph of page 40).

Note that Fig. 2 of the appellant's application, as presented above, looks like a capital letter "A", rather than "a triangle".

Claim 9 further recites "*wherein each of said first and second beams has multiple mounting points in the vicinity of said second and third booms, respectively, for selectively receiving an associated end of said third beam at one of a plurality of discrete mounting locations*".

Note that the Soviet Union Patent (SU 887434) shows a third horizontal beam (8) being received between the first beam (1) and the second beam (9). The modified Soviet Union Patent (SU 887434), as presented above, does not show *multiple mounting points on the first and second beams.* However, Fig. 2 of the France Patent (FR 2420502) teaches an extendible beam having a plurality of slots, which can be considered as mounting points, for receiving other beam. Figs. 1 and 3 of Gonzales (3,831,791) also teaches an extendible beam having a plurality of apertures, which can be considered as mounting points, for receiving other beam. To those skilled in the hoisting and lifting crane art to provide mounting points such as apertures or slots on the beams of modified Soviet Union Patent (SU 887434) as taught by either the France Patent (FR 2420502) or Gonzales (3,831,791) to readjust the length of the respective horizontal beams.

Claim 10

Appellant does not argue.

Claim 10 recites "wherein said first boom comprises a front boom located adjacent a lateral centerline of said gantry crane and said second and third booms are rear booms located on opposite sides of said lateral centerline".

Fig. 2 of the Soviet Union Patent (SU 887,434) (see Exhibit B) teaches a first or front boom located adjacent a centerline.

Claim 11

Appellant does not argue.

Claims 17-20, 22, and 23

Note that Claims 17-20, 22, and 23 are method claims, and the appellant's arguments are similar to the previously claims 1-4, 7, and 9-11.

Claim 12, 13, 16 and 20

Claim 12, 13, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791), as applied to claim 1 above, and further in view of Rulison (4,749,324).

Appellant argues that "the Examiner amalgamation of references clearly evidences a picking and choosing of isolated disclosures of the cited prior art in an attempt to yield the presently claimed invention" (see 2nd paragraph of page 41).

In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim 12 recites "*wherein each of said bases is rotatable about the associated vertical axis through an angle of 360 ° relative to the associated lift leg*".

Claims 13, 16, and 20 also recite the phrase "*wherein each of said bases is rotatable about the associated vertical axis through an angle of 360 ° relative to the associated lift leg*", as one of the limitations in the claims.

Appellant fails to argue Rulison (4,749,324). The modified Soviet Union Patent (SU 887434), as presented, does not specifically show the mobile base is 360 degree rotatable.

However, Rulison (4,749,324) teaches a base (42) having a wheel (38,40) which is rotatable 360 degree (Col. 2, lines 54-65).

Thus, to those skilled in the gantry art to modify each wheel the Soviet Union Patent (SU 887434) as taught by Rulison (4,749,324) to provide rotatable wheels so that the modified gantry could be used not only for tracks but also at different locations.

Claim 14

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791), and in view of Brower (4,897,011), and further in view of Rulison (4,749,324).

Appellant argues that "claim 14 specifies that the inner tube and outer tubes are slidable relative to one another, i.e. extendable and retractable. One of the ordinary skill in the art will readily appreciate from the disclosure of Browner that the mechanical lift device disclosed therein includes a number of tubes that are bolted or pinned together. That is, appellant does not disagree that one tube engage another tube, however, one of ordinary skill in the art and equipped with a modicum common sense would appreciate that a bolted or pinned connection

is not otherwise adjustable or configured for extension and retraction for lifting of a load as specified by claim 14" (2nd paragraph of page 44).

Note that claim 14 is a combination of claims 3, 4, and 5.

The Examiner had presented on pages 18-24.

Claim 15

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Soviet Union Patent (SU 887434) and the France Patent (FR 2,597,460) in view of either the France Patent (FR 2420502) or Gonzales (3,831,791), and in view of Brower (4,897,011), further in view of Rulison (4,749,324), as applied to claim 14 above, and further in view of Tana et al. (4,973,094).

Claim 15, which is similar to claims 6 and 8, further recites a pair of cylinders on the respective tubes (3b,3c,4b,4c) to extend or retract.

The Examiner had clearly presented on pages 25-26.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/PAUL T. CHIN/

Examiner, Art Unit 3652

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